



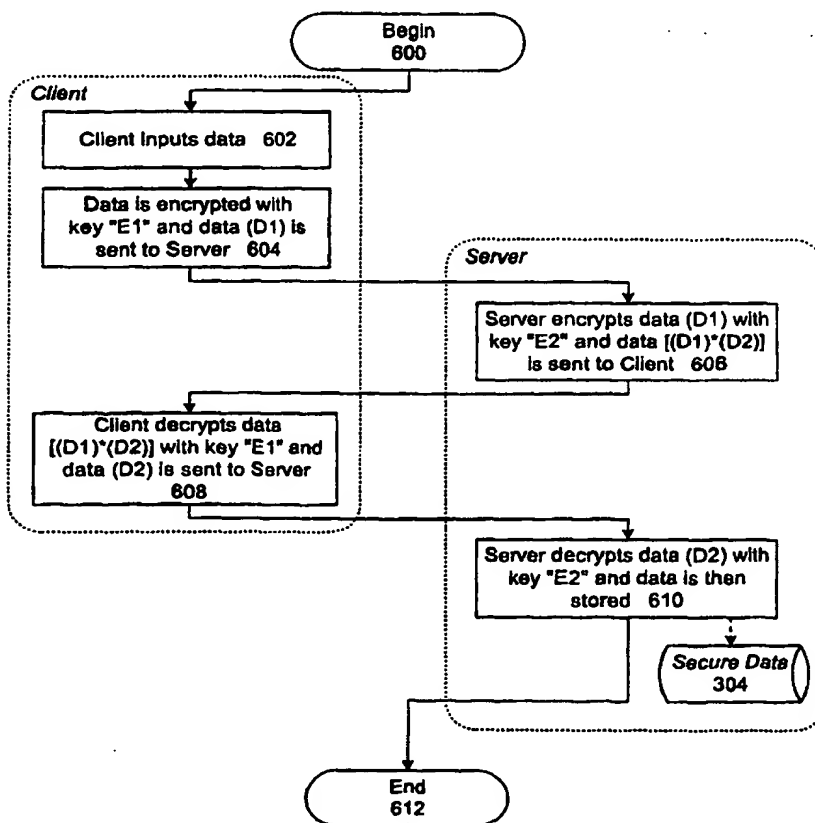
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(54) Title: SYSTEM AND METHOD OF SENDING AND RECEIVING SECURE DATA USING ANONYMOUS KEYS

## (57) Abstract

Data can be securely transmitted between two computers over a network, such as the Internet, using anonymous keys that are private only to each user and are not shared with anyone else. The data is first encrypted at a first computer with a first private key into a first encrypted data file. The first encrypted data file is then transmitted to a second computer, wherein the first encrypted data file is encrypted with a second private key into a second encrypted data file. The second encrypted data file is then sent to the first computer, wherein the second encrypted data file is now decrypted with the first private key, known to the user at the first computer, into a third encrypted data file. The third encrypted data file is then sent to the second computer, wherein the third encrypted data file can not be fully decrypted into the original data file using the second private key. Associative properties of encryption and decryption are used and allow for the use of large private keys in order to obtain a high-level of security.



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